

In multi-tasking, women take lead but men do it too

MELISSA HEALY, Los Angeles Times

Pam Logan is a multitasker by nature, by circumstance and by profession.

An air-traffic controller in San Diego, Logan shepherds jetliners into and through the airspace of Riverside County, Calif., routing them around swarms of small planes that operate from local airstrips.

She is also a new wife, mother to a 13-year-old son, chief bill payer and procurement officer for her family, cleaner of all in her home but the bathrooms, and a student finishing her bachelor's degree. Just as she does with planes in her airspace, Logan often juggles the demands of her many roles simultaneously.

"I just need to do more than one thing at the same time," says Logan, 34. "I've always been that way."

Logan's husband of 18 months, John, "is not that way," Pam says simply. While she whirls like a dervish through the house, talking, putting away laundry, helping her son with his schoolwork, organizing her family's social life and completing her own classwork, John Logan cooks dinner. Or he checks his e-mail. Or he cleans the bathroom. "He focuses on one thing at a time," Pam Logan says.

The Logan household could be the epicenter of a scientific discussion on men, women and multitasking. Whether and how the sexes cope differently with multiple demands on their brainpower has become a hot topic around water coolers, at dining tables and in classrooms.

Are women better?

For many women, female superiority in this realm is an article of faith.

"Not even close," says Cynthia McClain-Hill, a Los Angeles attorney, mother, community activist and multitasker. "Most men I know would completely blow up or come unglued if they were challenged to get through the day of many working women."

But ask a roomful of scientists to pick a winner in the latest skirmish of the gender wars and most will simply venture that women and men multitask differently. It may be the way their brains work, the way their hormones flow or the sheer weight of practice that makes some people more unflappable in the face of competing mental demands, they say.

Like parents refusing to pick favorites among their children, that is as far as many will go.

Husband-and-wife team Raquel and Ruben Gur study gender differences at the University of Pennsylvania.

Ruben Gur says that in studies that compare the structure of men's and women's brains and in those that watch their brains at work, the sexes tend to see the world differently and respond in different patterns.

Those studies, he says, reinforce long-held notions that contrast men's "spotlight minds" with women's "floodlight minds." The differences also suggest, he says, why women cope with multiple demands on their brainpower with greater deliberation, while men respond with faster action.

In the lab, when men and women perform language tasks (in which women perform better) or spatial tasks (in which men outperform women), women's brains are activated widely, with much sharing of information between the hemispheres, Gur says. Women are naturally multitasking, sweeping in a wide array of details before they draw a conclusion.

I see, I do

When men are given the same tasks, their brains "light up" more selectively, using areas of the brain that specialize in the task at hand. By default, Gur says, men's brains are primed to act -- often before priorities have been set and the situation is assessed and analyzed. Their approach to tackling many tasks at once may, in effect, be to roll up their mental sleeves and get working on them -- one at a time but as fast as possible.

"In a stressful, confusing multitasking situation, women are more likely to be able to go back and forth between seeing the more logical, analytic, holistic aspects of a situation and seeing the details," Gur says. "Whereas men will be more likely to deal with (the situation) as, 'I see/I do, I see/I do, I see/I do.'"

That might make men a little faster and women more accurate at completing tasks that involve mental juggling.

It fits with the findings of a 2000 study of short-term, or working, memory conducted by researchers at the University of California, Los Angeles, and published in *Neuroreport*.

Oliver Speck and colleagues observed different strengths, and different patterns of brain activation, in men and women as they performed working memory tasks -- a cognitive skill that is key to multitasking. On average, women showed higher accuracy, but men had slightly faster reaction times.

Such gender-specific cognitive styles, says Boston psychiatrist Edward M. Hallowell, also may be why women appear to cope differently than men do with the stresses of multitasking. Women tend to be more verbal -- to talk about their challenges and stresses more readily than men, says Hallowell, author of "Crazy Busy: Strategies for Coping in a World Gone ADD."

Faced with multitasking overload, men "tend to cope with it badly: by pushing harder, by honking the horn," he says. Their impulse to "do something" often leads men to respond to such stresses with aggression and that's usually "the worst thing to do," he adds.

Just give him a job

The "just do something" response is something Gur says he sees in himself. It's a stark contrast to his wife's approach to multiple demands, he acknowledges. A practiced multitasker, Gur believes he has become pretty good at it. But his wife, he says, has him beat by a mile.

When both come home from work together and face the task of whipping up dinner for a hungry family, he says, "I just ask her, what do you want me to do?" Once his task is set, says Gur, he is a fast and effective worker. He makes a mean salad, he says. "But I can't at the same time worry about whether this is in the microwave and that is in the skillet. When I do, something will burn."

Finally, if practice makes perfect in the art of multitasking, then most of those who study gender roles agree that women should have an edge based on experience alone.

Since the earliest days of human society, the female of the species has carried on multiple activities

simultaneously. While caring for children, they cooked and tended the fire, raised crops and cured skins to furnish the dwelling. Men's roles in early society consistently required more singular focus, says Rutgers University anthropologist Helen Fisher.

"His basic job for millions of years was to sit behind a tree and hit the buffalo over the head with a rock," adds Fisher, author of "The First Sex: The Natural Talents of Women and How They Are Changing the World."

As women have added paid work to their duties, they have gravitated toward jobs that require multitasking, experts say. Even as women rise through the ranks in the labor market, they remain, as a group, clustered in lower-paid jobs, says Ellen Galinsky, executive director of the New York-based Families and Work Institute. In the paid labor force, more of women's work is "invisible," focused on process and maintaining relationships, she adds. "It's work to make work work," Galinsky says.

Like two feet

For those intent on keeping score, however, one line of research appears to grant females a small victory.

Speaking to fellow cognitive neuroscientists in San Francisco, multitasking researcher Marcel Just described gender differences observed in a screening test he gave to students at Carnegie Mellon University, where he teaches.

Twice as often as males, female subjects were able to listen to two distinct voices and accurately answer questions about the content of the spoken messages. Such skills give an important edge in certain settings, such as airline cockpits and air-traffic control towers, Just says. But he cautions that his findings fall far short of suggesting "something universal" about women's multitasking skill.

Fisher thinks that such reticence about multitasking is rubbish. "Women are better built for this, and do it more," says Fisher. "It's a no-brainer."

But if men and women are to manage a world of jangling cell phones, full e-mail queues, demanding clients and needy families, they will have to pool their different talents and share the work.

"Men and women," says Fisher, "are like two feet: We need each other to get ahead."

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